

# Memorandum

**TO:** RULES AND OPEN  
GOVERNMENT COMMITTEE

**FROM:** Mayor Chuck Reed  
Councilmember Sam Liccardo  
Councilmember Forrest Williams

**SUBJECT: DOWNTOWN COMMUTER  
BICYCLE DEMONSTRATION PROJECT**

**DATE:** August 20, 2008

Approved Chuck Reed Date 8/21/08  
Forrest Williams  
Sam Liccardo  
RH

**RECOMMENDATION**

1. Refer to the Transportation and Environment Committee; with the objective of directing staff to apply for BEP funding from VTA that incorporates a proposal with the following elements:
  - a. Physically segregated lanes for bicycles within the automobile right-of-way, focusing geographically on commuter routes to San José State University, transit hubs at Diridon station and the Transit Mall, and along the Guadalupe River Park corridor;
  - b. increased availability of bike racks downtown;
  - c. an evaluation of opportunities to contract with private parties to provide "bike valet" services at key transit stations or downtown events; and
  - d. an evaluation of opportunities to contract with private parties to pilot a "bike share" program downtown.
2. If some elements or combination of elements do not appear feasible, the Committee should be informed of the reasons for staff's conclusions.
3. Continue existing programs such as Street Smarts, which improve bike safety education among children and adults.

**BACKGROUND**

Commuting by bicycle brings widespread benefits for air quality, carbon emissions, public health, fiscal savings, and community well-being. Although San José recently hosted a major symposium to boost bicycle safety, and although the City actively promotes cycling through such events such as the Amgen Tour de California, LiveStrong, and Bike to Work Day, we have much work to do to persuade our neighbors to leave their cars at home.

San José residents ride a bicycle to work more frequently than the national average, but we commute to work by bike only 0.9% of the time, a rate well behind nearby towns like Palo Alto and Mountain View, and far behind national leader Portland (3.5%). Meanwhile, many European cities with less favorable climates make cycling a major transportation mode, such as Copenhagen, where 36% of trips to work are made by bike.

### Can We Really Get Commuters On To Bikes?

Improving this “mode share,” or the percentage of all trips taken by bicycle, may seem like hard sloggng in this car-dependent Valley. Yet despite our habitual driving, over forty percent (40%) of our automobile trips extend less than two miles. In short, we have ample room to grow the “mode share” of bicycling as a commute option.

Signs of hope abound in Silicon Valley. Palo Alto significantly increased its rate of bicycle commuting by creating “bicycle boulevards” on select streets, orienting stop signs to provide the right-of-way to cyclists on the boulevard. In San José, a September 2007 survey by the Friends of Guadalupe River Park and Gardens indicated that several hundred cyclists already rely upon the recently-completed trails along the Guadalupe to reach jobs in North San José and Downtown each day. Anecdotally, we see more cyclists in our downtown today than five years ago, particularly as gas prices continue to increase.

A recent study conducted in Wales and England isolated the key determinants of bicycle mode share, among them the lack of hilly topography, warm weather, low rainfall, and well-paved streets. (Parkin, Wardman, and Page, *Transportation*, January 2008) As a relatively flat city with 300 days of sun a year, San José appears naturally well-situated to become a model bicycling-friendly city in the U.S.. Certainly, American cities with far less favorable terrain and weather have made enviable gains in cycling mode share by making simple investments in bicycle transportation.<sup>1</sup>

Currently, the City of San José is undertaking the update of its long-range Bicycle Master Plan, concurrent with its update of the General Plan and the countywide updates of the 2035 Valley Transportation Plan and Countywide Bicycle Plan. Each of these planning efforts provide us ample opportunity to leverage San José’s sunny climate and active lifestyle into healthier commuting habits. Moreover, as population density increases in San José’s core, the percentage of bike-able short trips for jobs, shopping, and services will only increase.

### Why Not Simply Expand Our Lanes and Trails?

Building out our network of bike lanes and trails will obviously help. Repeated studies have shown that increasing mileage of bike lanes appears positively correlated with increases in bike commuting.<sup>2</sup> That effort lies at the heart of San Jose’s citywide Bicycle Master Plan revision, currently underway, and recent expansions of the Los Gatos Creek and Guadalupe Creek Trails will do much to help.

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<sup>1</sup> For example, installing bicycle-friendly road features and facilities resulted in large gains in bicycle mode share in downtown Minneapolis and the area surrounding the University of Minnesota, where bicycle facility investments were concentrated. Remarkably, bike trips declined in nearby downtown St. Paul, which lacked such improvements. (Barnes and Thompson, Transportation Research Board Annual Meeting 2006 Paper #06-2365)

By installing bike lanes on over 90% of its surface streets, Corvallis, Oregon boosted its mode share to a lofty 7.5%.

Portland, widely cited as a model U.S. city for transportation planning, features 171 miles of bike lanes, 71 miles of bike trails, and another 114 miles of “bicycle boulevards,” where vehicle speed is restricted to grant priority to cyclists. The results appear palpable: more than five percent of its residents ride to work, a number that exceeds 9% in the more urban parts of the city.

<sup>2</sup> See, e.g., Dill and Carr, “Bicycle Commuting and Facilities in Major U.S. Cities: If You Build Them, Commuters Will Use Them – Another Look” TRB 2003 Annual meeting, found at [http://www.des.ucdavis.edu/faculty/handy/ESP178/Dill\\_bike\\_facilities.pdf](http://www.des.ucdavis.edu/faculty/handy/ESP178/Dill_bike_facilities.pdf).

Yet DOT statistics suggest that we already have a bikeway network that is 57% complete, with some 98% of bike-accessible local arterials already developed.<sup>3</sup> More expansion awaits, but we need to ask ourselves why our residents aren't using the 140 miles of bike lanes, 40 miles of bike trails, and 16 miles of bike routes that we've already built. The three answers residents frequently recite include physical safety, convenience, and secure storage.

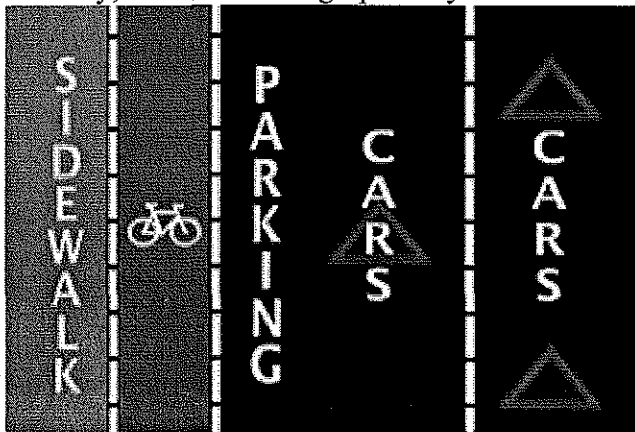
### The Plan

Continuing to expand our network will be a necessary, but not sufficient, means to improving bicycling mode share. Improvements to our existing bicycle street facilities may better "move the needle" in the short-term. Such improvements seem particularly compelling where we can demonstrate the convenience, safety, and benefits of cycling in a highly visible part the city: the downtown. We can do so with three major elements:

- Physically separated bike lanes along key corridors;
- A program of safe storage, including public bike racks and "bike valets" at major festivals, concerts, or sporting events;
- The introduction of a "bike share" or similar rental program.

### Physically Separated Lanes

Many people continue to feel reluctant about riding to work because they don't feel safe doing so. Only 48% of San José residents feel that cycling conditions seem safe (compared with 83% of those assessing driving conditions here). Changing our commuting habits depends on improving cyclists' sense of safety. One obvious means of doing so: separating the bicycle lane from traffic by means of a physical barrier. Other cities use barriers consisting of everything from rows of concrete ballards, trees, shrubbery, curbs, or even plastic flexi-cones. The cycling lane supplants the row of parked cars aligning the curb, thereby pushing the parked cars out into the right of way, as can be seen graphically below:



This approach is seen throughout major downtowns such as Paris, London, Copenhagen, Montreal, and Bogota. San Diego and even New York City have now begun to tinker with the concept.<sup>4</sup> By making key downtown streets a demonstration of this concept, we would protect cyclists in a part of the city where they feel the most vulnerable, while improving the visibility of cycling as a commuting option in Silicon Valley.

<sup>3</sup>See [www.sanJoseca.gov/transportation/supportFiles/bikeped/SJ\\_Bike\\_MAP.pdf](http://www.sanJoseca.gov/transportation/supportFiles/bikeped/SJ_Bike_MAP.pdf) for an excellent map of the city's primary bike lanes and routes.

<sup>4</sup>See <http://www.streetfilms.org/archives/physically-separated-bike-lanes/> for a short film of New York City's recent efforts, which includes footage of similar concepts in a few European cities.

DOT officials have understandably expressed concern in the past about the possible obstruction of driveways and side-streets with a continuous barrier that would separate the roadway from a bike lane. An adequately segregated bike lane would not need a continuous barrier, however. A row of street trees or bushes, broken curbs, or even orange plastic flexi-bollards would create the visual separation needed to make otherwise reluctant cyclists feel safe. In locations where an obstruction in the right-of-way poses safety issues, paint markings could suffice for a short distance. Creating that sense of safety, however, does depend on some physical separation for most of the route.

### Why Downtown?

In recent months, I've benefited from the insights of Department of Transportation officials, such as Hans Larsen and John Brazil, concerning where "pilot" improvements in bicycle facilities might have the largest impact on commuters. It appears that an ideal starting point would focus on a major employment center or an educational facility with a significant percentage of bike-friendly commuters. Further, a high density of transit services would bring important synergies to that location.

Naturally, the downtown comes to mind, because it boasts the city's largest university, San José State, and its busiest transit centers at Diridon and the Transit Mall. A demonstration project downtown could leverage the proclivity of students to use bikes for transportation, and the campus' proximity to other major downtown employers, such as Adobe, Deloitte, Acer, and the City of San José, the State of California, and various federal agencies. Linking the university to the major multi-modal transit stations at Diridon and the Transit Mall and the existing bicycle commute corridor in Guadalupe River Park will breed a contagion of benefits throughout downtown and the rest of the city. A downtown location will also serve prominent notice to visitors and neighbors of San José's high quality of life and superior climate.

Assessing the precise location of the separated bike routes requires considerable staff analysis, in collaboration with SJSU, VTA, and the community. A few routes seem worth close study. For instance, an east-west route supplanting existing bike lanes along San Fernando could connect SJSU with Diridon Station and the Guadalupe River Park and Gardens' bike trail, a common commuter route.<sup>5</sup> Another (and longer) logical east-west route might lie along the Hedding-Mabury corridor, thereby narrowing an unduly wide street to provide a bike commute option for thousands of workers in the Civic Center, and which transverses several major thoroughfares (e.g., Bascom, Alameda, Coleman, First) and a Light Rail station. Running north-south from the University, several candidates emerge, including 4<sup>th</sup>, 7<sup>th</sup>, or 10<sup>th</sup>/11<sup>th</sup> streets.<sup>6</sup> Of course, these are merely options; any project will require substantial community outreach before final design.

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<sup>5</sup> A segregated bike corridor along San Fernando would have high priority for VTA BEP funding for three reasons: (1) Highway 87 lacks an arterial crossing with a bike lane or shoulder at San Fernando or Santa Clara Streets; (2) San Fernando constitutes a critical "safe route to transit" (SR2T) to Diridon Station, and (3) San Fernando Street is already part of the Cross County Bicycle Corridor Network, as part of Route 10. (See June 6, 2008 Final Draft Countywide Bike Plan, p. 3-1, 3-6, and 4-3)

<sup>6</sup> The city has already developed bike lanes along 7<sup>th</sup> street heading south of the campus. Heading north, Fourth Street already has bike lanes in Japantown, and pushing a segregated bike thruway south to San Salvador or Williams would reach SJSU, while doing so to the north could connect a public school and the county Civic Center to the network. Some have suggested narrowing the one-way couplets of 10<sup>th</sup> and 11<sup>th</sup> to add a separated bike lane, but that option requires substantial conversation with communities hesitant to opt for anything less than a full City commitment to convert those couplets to two-way streets.

### Bike Storage – Racks and Valets

A disincentive to cycling also arises from the quandary many commuters face about where to leave their bike when they get to a transit stop or their final destination. Although the city has an inventory of over 500 public bike racks, the downtown still lacks racks—or sufficient rack space—at key destinations. One exasperated downtown resident noted that she tried to bike to the Sonoma Chicken Coop, the San José Museum of Art, and Bijan Bakery on one Saturday, and in each case, could not find a public rack (or available space in such a rack) at which to leave her bike.

Even with sufficient racks, concerns regarding the theft of bike parts, or the impact of adverse weather, make residents hesitant to leave bikes outside. At concerts and major events with large crowds, moreover, it's often unrealistic to expect attendees to merely leave their bike at a sidewalk rack.<sup>7</sup>

“Bike valets” might better provide safe, simple storage, and the City or VTA could contract to allow such operators on public property. These could come in various forms. At San Francisco's Fourth & Townsend Caltrain station, for instance, Warm Planet operates a bike repair and sales business, offering free bike parking to Caltrain patrons. Similarly, At Diridon station, VTA could offer free rent to a repair shop in exchange for valet services. Alternatively, small private contractors could operate such valet services at locations such as the Children's Discovery Museum, the Arena, or the Civic, or at events like the Jazz Festival or Independence Day festival, where attendees will eagerly embrace alternatives to high parking fees and traffic delays.

### Bike Share

“Bike share” refers to a privately-managed program of short-term rental of bicycles from unattended “docking stations” with the use of a credit card or pre-programmed membership card.

This program can solve two problems. First, it can overcome the inhibitions of those reluctant to store their own bikes at public racks. Second, where cyclists often cannot find space to board their bikes on Caltrain, Light Rail, and buses, a bike share program at key transit hubs can boost transit ridership and bike use.

Boarding trains and light rail with bikes has become more difficult with increased usage of bicycle and transit usage in recent years. Currently, only 13% of Caltrain riders with bikes actually park their bike at the station; the remainder bring them along the train, resulting in over 2,300 bicycle boarding's per day. In a 2007 survey, 42% of cyclists reported having experienced an inability to board Caltrain five times or more in the past year because the “bicycle car” was full. Obviously, this lack of predictability will deter many commuters from using Caltrain, Light Rail, ACE, or the Capitol Corridor. Bike share helps resolve this issue, without the expense of adding rolling stock to the trains.

Bike share programs, managed by private companies, have already enjoyed considerable success in many European cities. The French city of Lyon adopted a system in May 2005, relying upon JC Decaux, a contractor already familiar to denizens of San José's downtown for its self-cleaning restrooms. By linking bike share with other transit modes, Lyon's program has 2,000

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<sup>7</sup> “Bike Trees” may offer one solution, and their use has increased in European cities like Geneva. See <http://www.biketree.com/>

bicycles at 175 docking stations, resulting in up to 16,000 rentals per day. Since Paris initiated the same program (the “Vélib”) in 2007, it has logged as many as 120,000 bike rentals per day, and the city has earned some \$31 million in revenue from subscribers.<sup>8</sup> JC Decaux also runs programs in Vienna, Brussels, Seville, and Cordoba.

In the United States, Washington D.C. will embark upon a program of its own this summer. Under the D.C. model, “SmartBike DC” users will pay a \$40 annual fee to pick up a bike from ten select docking stations around the city and return them to any other station.<sup>9</sup> For funding, the program relies upon Clear Channel Outdoor, which leverages the bike rack installations for advertising space. ClearChannel also operates similar programs in Barcelona, Oslo, Stockholm, and Rennes.

The critical benefit comes not in the mere use of rental bikes by those otherwise likely to ride anyway, but in enticing new riders. As one Vancouver transportation official has noted, “[e]xperience from Lyon suggests that a significant increase in private cycling trips is likely to occur as well since the public bicycle system acts as a ‘door opener’ to increase the acceptance of cycling as an urban transport mode.”

Obviously, San José lacks the residential density and transit development of many European cities. Other approaches to encourage bike use might start with closed-system bike-share programs--such as the innovative program that the City of San Jose is currently launching for our own employees—and expand outward. Other logical “clients” for such closed systems might include SJSU, VTA Ecopass holders, or residents at a consortium of high-rise residential towers.

We might also consider a “bike share” concept that focuses on regional transit nodes, such as one that places a docking station at each CalTrain and Light Rail depot throughout the Valley, to reduce crowding on oversubscribed “bike cars.”

#### Funding

The Santa Clara County Valley Transportation Authority has adopted a Bicycle Expenditure Program (BEP) to fund projects in the countywide bicycle plan until 2030. The projects include bicycle/pedestrian bridges, major trains, and on-street bikeway improvements, and the VTA board reauthorizes the list of projects every two years. The BEP draws from three state grant programs and previously-allocated 1996 Measure B dollars to pay for these programs.

Of particular interest is the Transportation Fund for Clean Air (TFCA), a state program funded by a \$4 surcharge on vehicle registrations. The VTA administers 40% of the TFCA funds collected in Santa Clara County, and it spends half of those funds for bicycle projects in the BEP, and the other half for other emission-reduction projects, such as transit and signal-timing, in what is known as the “competitive program.”

In the 2008 cycle, sponsoring local cities submitted only one BEP project for TFCA funding, while they made seven eligible non-bike “competitive program” applications. As a result of this

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<sup>8</sup> See Steven Erlanger, “A New Fashion Catches On in Paris: Cheap Bicycle Rentals” *New York Times*, July 13, 2008.

<sup>9</sup> Some cities have tinkered with bike share pilot projects with less success, and we can learn from their lessons. In Portland, city officials noted a high rate of theft of bike parts. For that reason, successful systems rely upon using non-standard bike types, secure self-rental devices activated by credit cards. The key to the model lies in its capable execution by a competent private vendor/sponsor.

vacuum in BEP applications, the non-bike programs "borrowed" \$1.07 million in TFCA funds from the BEP program in order to fund the seven eligible non-bike programs.

Herein lies the opportunity: TFCA dollars will flow disproportionately to bike programs to "pay back" the BEP in future years, and "will likely result in 100% of next year's TFCA estimate[d] revenue] being owed to BEP," according to an April 2, 2008 VTA staff memorandum.

Accordingly, funding for bike-focused projects appears readily available for those cities nimble enough to prepare for it. The City of San José should not pass on this opportunity to prepare a compelling BEP project application in time for 2009 TFCA funding. Concurrent with its submittal of an application for a downtown project, of course, the City should apply for BEP funding to expand bike lanes and trails throughout other parts of the city as well.

As the project sponsor, the City of San José would retain responsibility for constructing and implementing the project. The City would receive 80% reimbursement for funding from VTA's BEP program, but could pursue grants and other sources for the remaining 20%. Obviously, if the VTA staff and Board do not accept this proposal in the 2009 cycle, the City should refrain from pushing forward until some other source of funding is identified.

For the 20% of "local match" required under the BEP mandates, the City could turn to private sources. For instance, a high-rise developer eager to slightly reduce the parking ratio on a downtown tower might have an incentive to invest in "bike share" infrastructure on-site. Similarly, Clear Channel or other sponsors might rely on bike docking stations for advertising opportunities, as they do in Washington. There exist multiple means by which the City could leverage private and state funding to launch this innovative program here in San José.

Obviously, options abound. We won't know of their feasibility, however, if we leave money on the table, and failing to apply for BEP grants would do just that. Particularly given the downtown's geographical proclivity for short trips, San José offers many opportunities to beat Fords into "bike share."

# Memorandum

**TO:** RULES AND  
GOVERNMENT COMMITTEE

**SUBJECT: DOWNTOWN BICYCLE  
DEMONSTRATION PROJECT**

**FROM:** James R. Helmer

**DATE:** 08-26-08

Approved



Date

8/27/08

## RECOMMENDATION

Accept proposal for the development of a Downtown Commuter Bicycle Demonstration Project and refer it to the Transportation and Environment Committee for consideration in early 2009 as part of the planned update to the Citywide Bicycle Master Plan.

## BACKGROUND

On August 18, 2008, the Transportation and Environment Committee accepted a staff report and presentation on the effort to update the City's Bicycle Master Plan and accepted the schedule for staff to return to the Committee with a draft master plan by early 2009. The intended scope of the updated bicycle plan includes the following elements:

- Expand planned bikeway network of creek trails and on-street bikeways from 300 miles to 450 miles (171 miles are currently complete)
- Enhance bicycle integration with transit and expand bike parking facilities
- Improve bicycling safety through education and enforcement programs
- Encourage greater bicycling travel to work, school and special events
- Review and consider best practices from leading "bicycle friendly communities" including colored bike lanes, separated bike lanes, and public "bike share" programs
- Identify near-term priorities for bicycle transportation system development and grant funding opportunities
- Consider policy choices that eliminate on-street parking and/or motor vehicle travel lanes in favor of improved bikeways
- Coordinate bicycle plan with City's Bicycle and Pedestrian Advisory Committee (BPAC) and General Plan update process

On August 20, 2008, Mayor Reed, Councilmember Liccardo, and Councilmember Williams issued a memorandum to the Rules and Open Government Committee recommending the consideration of a Downtown Commuter Bicycle Demonstration Project that includes physically separated bike lanes in the Downtown core area, more bike racks, a bike parking valet program, and a "bike share" program. The intention is to develop a project as a candidate for grant



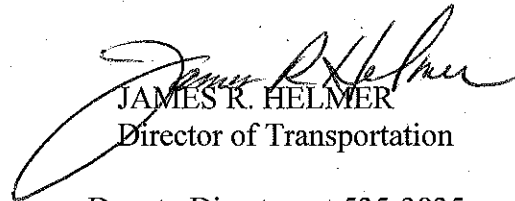
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funding through the Bicycle Expenditure Plan (BEP) program managed by the Santa Clara Valley Transportation Authority (VTA).

Staff finds that the scope of proposed Downtown Bicycle Demonstration Project is consistent with ongoing efforts being considered by the Citywide Bicycle Master Plan update process. Due to the proposed focus on potential bicycle transportation investments in the Downtown area, staff would work to engage key Downtown Stakeholders such as the Downtown Association, Team San Jose, and First ACT Silicon Valley, along with San Jose's BPAC and VTA's BPAC. From a schedule perspective, staff recommends that the Transportation and Environment Committee consider addressing both the Citywide Bicycle Master Plan Update and the Downtown Bicycle Demonstration Project in early 2009.



JAMES R. HELMER  
Director of Transportation

For questions please contact Hans Larsen, Deputy Director, at 535-3835.